

HERBERT HOOVER DIKE REHABILITATION PROJECT

**Briefing for the Water Resources
Advisory Committee,
Recreation Workshop**

**Presented by
US Army Corps of Engineers
Jacksonville District
Ingrid Bon, PE
Project Manager Forward
15 September 2014**



BUILDING STRONG®

Presentation Outline

- Overview
- Problems
- Solutions
- Rehabilitation Progress
- LOST Closures
- Current Projects
- Implementation Timeline



Herbert Hoover Dike Overview



- Lake Okeechobee is approximately 720 square miles
- Basin is over 5,600 square miles
- Average water depth is 9 feet
- One foot of rainfall runoff from the basin can result in a three to four foot rise of the lake
- During large flood events, water can flow into the lake much faster than it can be released



Herbert Hoover Dike Today

143 miles of embankment around Lake Okeechobee

- 32 federal culverts
- 5 spillway inlets
- 5 spillway outlets
- 9 navigation locks
- 9 pump stations

No overflow capability

Built by hydraulic dredge and fill methods

- Not acceptable to today's construction standards



HHD Problems (Failure Modes)

Internal erosion (seepage & piping)

- Through embankment
- Through foundation

Culvert structures

- Soil erosion into conduit
- Erosion/Piping around conduit

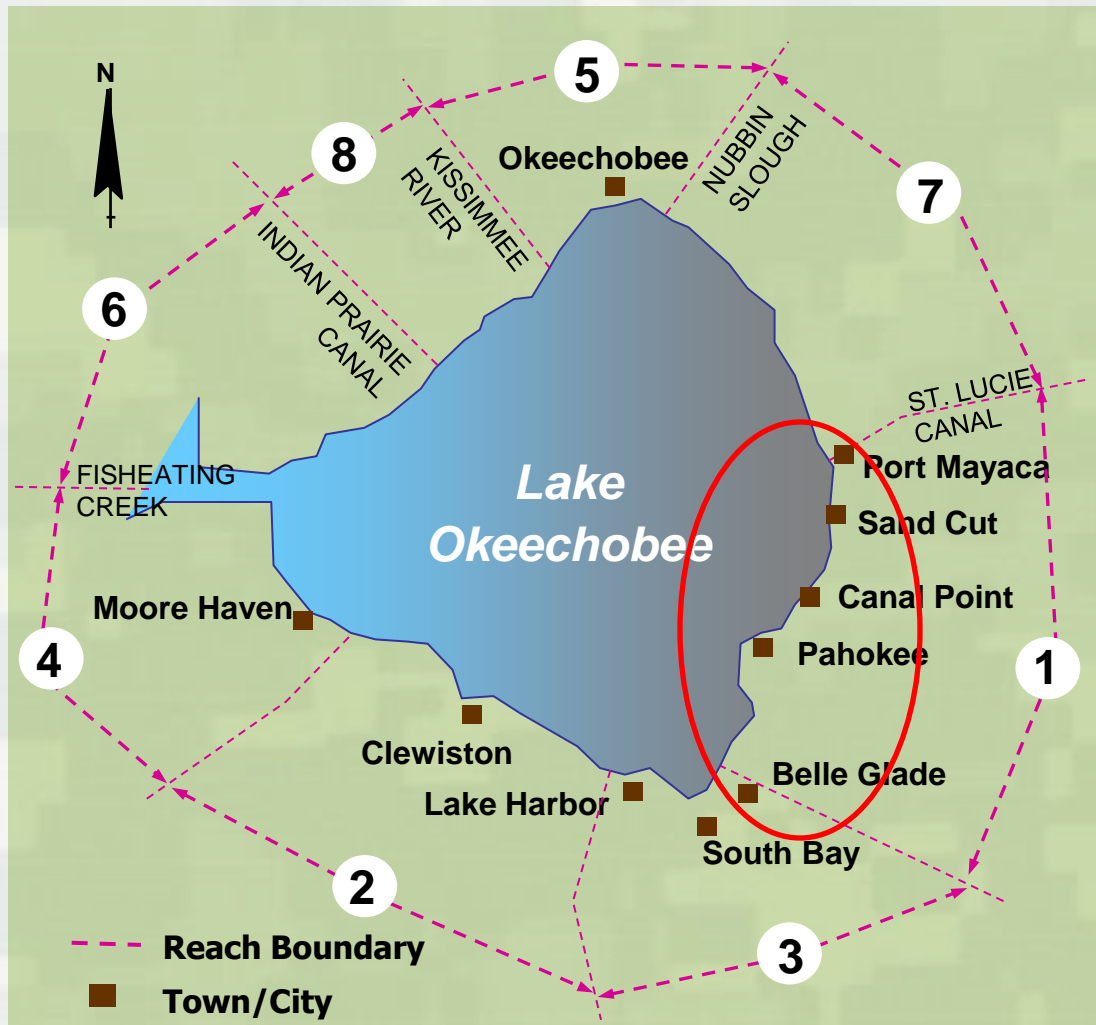
Overwash/Overtopping

- Erosion of downstream slope

Dam Safety Action Classification (DSAC) Level 1- Assigned 2006



HHD Solutions



Major Rehabilitation Report (MRR) - 2000

- Reach 1 initial phase
- Cutoff wall constructed

Federal Water Control Structures - 2011

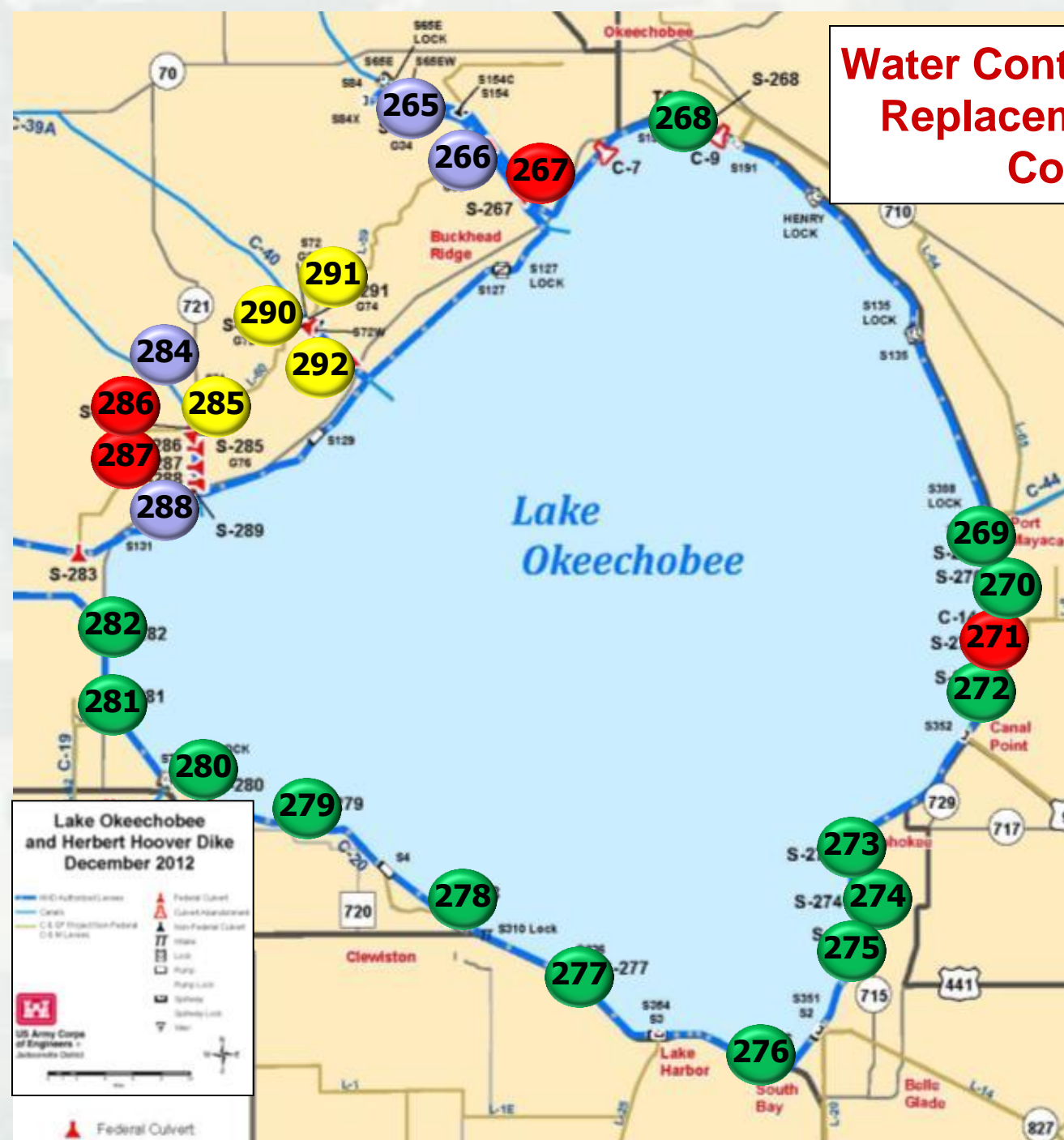
- 32 Federal culverts within the entire HHD system
- Replacement or removal

Dam Safety Modification Study (DSMS) - 2015

- System-wide approach
- Risk reduction measures below tolerable guidelines
- Prioritize implementation



Water Control Structure (Culvert) Replacements - Construction Contract Awards



KEY

FY11

4 FY 2011

2 FY 2012

6 FY 2013

2 FY 2014

4 FY 2015

4 FY 2016

4 FY 2017

FY20

BUILDING STRONG®

Lake Okeechobee Scenic Trail

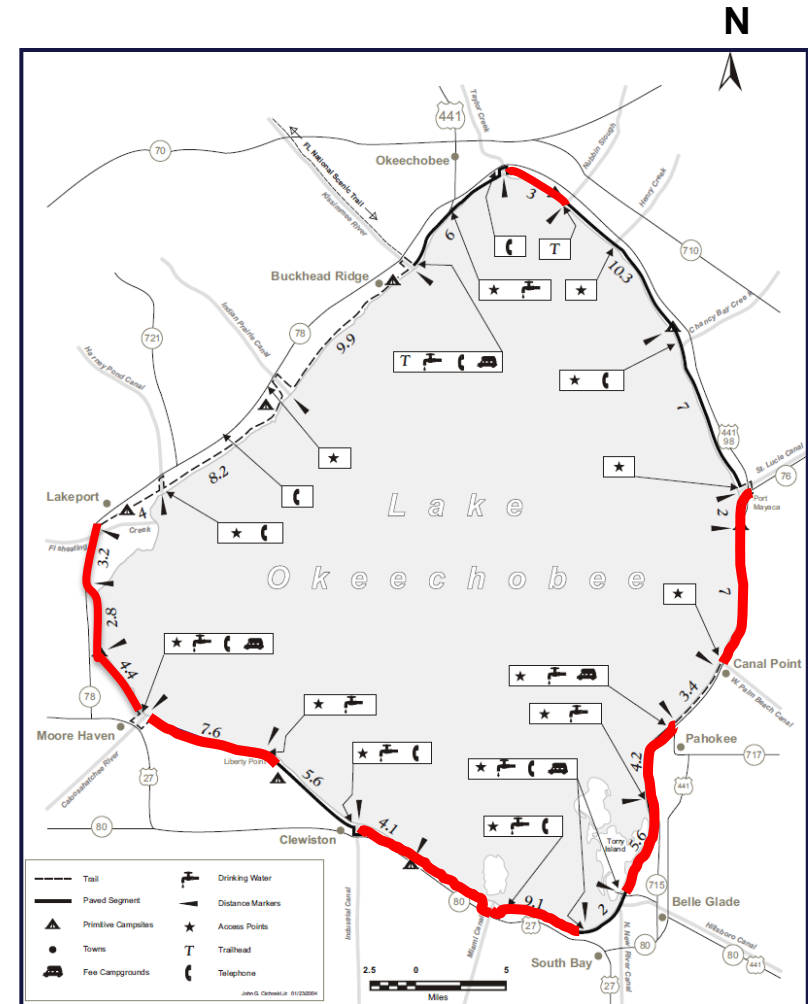
■ CURRENT CLOSURES

Sections of the Lake Okeechobee Scenic Trail are closed while the U.S. Army Corps of Engineers conducts Herbert Hoover Dike maintenance and rehabilitation.

The Port Mayaca to Canal Point section, the Pahokee to Torry Island section, the South Bay to Clewiston section, the Liberty Point to Moore Haven section, the Moore Haven to Lakeport section, and the Taylor Creek to Nubbin Slough section remain closed seven days a week for major dike rehabilitation activities. The Corps does not anticipate opening some of these sections of the trail until 2016 or later. The Herbert Hoover Dike Rehabilitation Project's goal is to reduce flood risk to the public and the environment.

Contractors are using heavy construction vehicles and large equipment within these areas. Truck traffic on the roads during production is a constant flow, and any additional traffic on the narrow trail or dike crest poses a safety hazard for recreationists and equipment operators.

This map does not reflect future closures. If you are planning an event, please contact the Corps' South Florida Operations Office for information by calling 863-983-8101.



**US Army Corps
of Engineers®**
Jacksonville District

www.saj.usace.army.mil

Recreation Concerns

- LOST – Closed in various sections due to construction
- LOST pavement – To be replaced over culvert locations
- Boat Ramps
 - ▶ Rardin Park - Closed
 - ▶ Clewiston and Canal Point - Open
- Navigation hazards
 - ▶ Cofferdams
 - ▶ Turbidity barriers
- Taylor Creek access – Closed to public by private landowner



BUILDING STRONG®

Port Mayaca



BUILDING STRONG®

Port Mayaca



BUILDING STRONG®

Canal Point



BUILDING STRONG®

Belle Glade



BUILDING STRONG®

South Bay



BUILDING STRONG®

Moore Haven



BUILDING STRONG®

Moore Haven



BUILDING STRONG®



Questions



BUILDING STRONG®